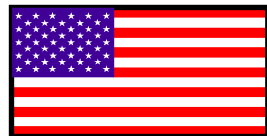


Refrigerants: Leak Repair Regulations

EPA Region 4

Dan Lucero



General Requirements of Section 608 of the CAA

- Citations
- No venting of refrigerants
- Certifications
 - Technician
 - Equipment manufacturer
 - Equipment owner
- Sales restriction
- Service and maintenance
- More information

Citations

- Statutory

- Section 608 of the Clean Air Act
- 42 U.S.C. 7671g

- Regulatory

- 40 C.F.R. Part 82 Subpart F

No Venting of Refrigerants

- Statutory and regulatory prohibition during service, maintenance, repair and disposal
- Originally applied to class I and class II only
- Since 1995, applies to all substitutes

Certifications

- Technicians

- Programs must be approved by EPA
- Approximately 100 currently active
- DOD has an approved program

- Equipment manufacturers

- EPA approved labs certify manufacturers
- UL and ARI

- Equipment owners

- Sample forms available

Sales Restriction

- Sales of class I and class II refrigerants is restricted
 - includes blends containing class I and/or class II
- Non-ODS refrigerants are not subject to sales restriction
- Proof of technician certification must be provided to seller

Service and Maintenance

- Opening appliances
- Recordkeeping
- Leak repair

Opening Appliances

- Services that would release the refrigerant unless previously recovered.
- Does not include:
 - connecting and disconnecting hoses to add/remove refrigerant
 - measure pressures
 - recover refrigerant

Recordkeeping

- No special recordkeeping requirements for appliances under 50 pounds of charge
- Appliances having 50 or more pounds of charge must document:
 - date
 - type of service
 - quantity of refrigerant

Leak Repair

- Applicable leak rates
 - Comfort cooling = 15%
 - Commercial = 35%
 - Industrial = 35%
- Leak rates calculated for a 12 month period
 - rolling sum
 - annualized method

Annualized method

- Annualized uses the following formula to calculate leak rates:
 - Step 1) # lbs of refrigerant added/refrigerant full charge
 - Step 2) 365 days/# of days since refrigerant last added
 - Step 3) multiply Step 1 by Step 2
 - Step 4) multiply Step 3 by 100%

Leak Rate Formula

$$\left(\frac{\text{\# lbs of refrigerant added}}{\text{refrigerant full charge}} \right) \times \left(\frac{365 \text{ days}}{\text{\# of days since refrigerant last added}} \right) \times 100\%$$

More Information

- General info

- Ozone Depletion web site

- ✎ www.epa.gov/ozone

- CFC Hotline

- ✎ (800) 296-1996

- 608 specific info

- ✎ www.epa.gov/ozone/title6/608/index.html

- Leak repair specific info

- ✎ www.epa.gov/ozone/title6/608/leak.html